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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,824	02/17/2004	Edward G. Tiedemann JR.	030159	3723

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EXAMINER	
RIZK, SAMIR WADIE	
ART UNIT	PAPER NUMBER
2133	

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/780,824	TIEDEMANN ET AL.	
	Examiner	Art Unit	
	Sam Rizk	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-63* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-63* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 February 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTIONS

- Claims 1-62 have been submitted for examination
- Claims 1-62 have been rejected

Drawings

1. Figures (1-2) should be designated by a legend such as --Background Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 7 should read:

   "..the first signal **and** conditionally transmitting .."

   Corrective action is required.

3. Claim 39 is objected to under 37 CFR 1.75(c) as being in improper form because it depend on itself. The Examiner interpret claim 39 to depend on claim 38.

   Corrective action is required.

4. Claim 41 should read:

" ~~receiving~~ **transmitting** a first...."

" ~~receiving~~ **transmitting** a second."

Corrective action is required.

5. Claim 57 is object to for the same reasons as claim 41

6. Claim 63 is object to for the same reasons as claim 41

7. Claim 27 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 25. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-5,19, 21,23,40,56, 58,59, 60 and 62 are rejected under 35 U.S.C. 101 because the claim invention is directed to non-statutory subject matter. Each limitation in claims 1,19, 21,23,40,56, 58,59, 60 and 62 comprises an abstract algorithm that can be carried by hand or computer software program element and is **not tangibly embodied**. Abstract algorithms are non-statutory.

For example, claim 1 recites:

- An apparatus, comprising:

- a message generator for:
- generating a first message comprising an acknowledgment indicator and a rate control indicator', and
- generating a second message conditioned on the rate control indicator.

The Examiner notes that generating a first message and a second message are not tangible results. Where the result is what has been determined, generating, calculated, selected, decided, etc. without using what has been determined, generated, calculated, selected, decided, etc. in a disclosed practical application or at least making what has been determined, generated, calculated, selected, decided, etc. available for use through some form of conveyance (for example display, print, sound, transmission, etc.) or at least temporary storage somewhere is non-statutory.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

9. Claims 55-57 are rejected under *35 USC § 112* because the claim invention is intended to embrace both product or machine and process is precluded by language of 35 USC 101, which sets forth statutory classes of invention in alternative only, and is also invalid under 35 USC 112, second paragraph, since claim which purports to be both machine and process is ambiguous and therefore does not particularly point out and distinctly claim subject matter of invention. See *Ex parte Lyell*, 17 USPQ2d 1548.

The Examiner notes that the method claims in 55-57 should comprise a series of step plus function that when implemented produce concrete and tangible results.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1,6,7,10,11,16,17, 19-23,55-60 and 62 are rejected under 35 U.S.C. 102(e) as being anticipated by Hakkinen et al US patent no. 7069038 (Hereinafter Hakkinen).

11. In regard to claim 1, Hakkinen teaches:

- An apparatus, comprising:
- a message generator for:
- generating a first message comprising an acknowledgment indicator and a rate control indicator; and
- generating a second message conditioned on the rate control indicator.

(Note: claim 1, in Hakkinen)

12. In regard to claim 6, Hakkinen teaches:

- An apparatus, comprising:
- a receiver for receiving a packet;
- a decoder for decoding the received packet; and

(Note: FIG. 2 in Hakkinen)

- a message generator for:
- generating a first signal comprising one of a first plurality of values, each value associated with an acknowledgment (ACK) or negative acknowledgment (NAK), and one or more of the values indicating a rate control command; and

(Note: Figures (3) and (5) in Hakkinen)

- conditionally generating a second signal comprising one of a second plurality of values corresponding to a respective plurality of rate control commands when the value of the first signal indicates a rate control command.

(Note: F(4), reference signs (S5-S7) in Hakkinen)

13. In regard to claim 7, Hakkinen teaches:

- The apparatus of claim 6, further comprising a transmitter for transmitting the first signal conditionally transmitting the second signal.

(Note: FIG. 2 in Hakkinen)

14. In regard to claim 10, Hakkinen teaches:

- An apparatus, comprising:

- a receiver for receiving a first signal and conditionally receiving a second signal in accordance with a rate control indicator; and

(Note: FIG. 2 in Hakkinen)

- a message decoder for decoding the rate control indicator from the received first signal.

(Note: FIG. 7 in Hakkinen)

15. In regard to claim 11, Hakkinen teaches:

- The apparatus of claim wherein the first signal comprises an acknowledgement.

(Note: FIG. 3 in Hakkinen)

16. Claim 16 is rejected for the same reasons as per claim 7.

17. In regard to claim 17, Hakkinen teaches:

- The apparatus of claim 16, wherein the transmitter retransmits the packet when the first signal indicates the transmitted packet is not acknowledged.

(Note: col. 4, lines (37-57) in Hakkinen)

18. Claims 19, 21 and 56 are rejected for the same reasons as per claim 1.

19. Claims 20 and 22 are rejected for the same reasons as per claim 10.

20. Claims 23, 40, 54, 55, 57-60 and 62 are rejected for the same reasons as per claim 6.

21. Claim 50 is rejected for the same reasons as per claim 17.

22. Claims 24-50 and 63 are rejected under 35 U.S.C. 102(e) as being anticipated by Kadaba et al. US Publication no. 2002/0172217 (Hereinafter Kadaba)

23. In regard to claim 24, Kadaba teaches:

- A method for rate control, comprising:
- receiving a packet',
- decoding the packet',
- generating a first signal indicating whether the received packet was decoded correctly and indicating whether a rate control command will be issued', and
- generating a second signal comprising the rate control command when a rate control command is issued.

(Note: section [0079] in Kadaba)

24. In regard to claim 25, Kadaba teaches:

- The method of claim 24, wherein the first signal comprises one of a first plurality of values, one of the first plurality of values indicating an acknowledgment of correct decoding and no rate control command.

(Note: section [0062], lines (7-9) in Kadaba)

25. In regard to claim 26, Kadaba teaches:

- The method of claim 25, wherein the value indicating an acknowledgment of correct decoding and no rate control command revokes a prior grant.

(Note: section [0081] (7-9) in Kadaba)

26. Claim 27 is rejected for the same reasons as per claim 25.

27. In regard to claim 28, Kadaba teaches;

- The method of claim 24. wherein the first signal comprises a value indicating no transmission corresponding to a negative acknowledgment of the decoded packet and no rate control command.

(Note: section [0079] in Kadaba)

28. In regard to claim 29, Kadaba teaches:

- The method of claim 24, wherein the rate control command is one of a second plurality of values, wherein one or more of the second plurality of values indicates a rate increase.

(Note: section [0079] in Kadaba)

29. In regard to claim 30, Kadaba teaches:

- The method of claim 24, wherein the rate control command is one of a second plurality of values, wherein one or more of the second plurality of values indicates a rate decrease.

(Note: section [0079] in Kadaba)

30. In regard to claim 31, Kadaba teaches:

- The method of claim 24, wherein the rate control command is one of a second plurality of values, wherein one of the second plurality of values indicates a rate hold.

(Note: section [0079] in Kadaba)

31. In regard to claim 32, Kadaba teaches:

- The method of claim 31. wherein the second signal comprises a value indicating no transmission for a rate hold.

(Note: section [0079] in Kadaba)

32. In regard to claim 33, Kadaba teaches;

- The method of claim 24, further comprising:
- receiving one or more transmission requests;
- receiving one or more autonomous transmissions; and
- allocating a shared resource in response to the one or more transmission requests and the one or more autonomous transmissions.

(Note: section [0076] through [0087] in Kadaba)

33. In regard to claim 34, Kadaba teaches:

- The method of claim 24, further comprising generating a grant in response to a received transmission request.

(Note: section [0080] in Kadaba)

34. In regard to claim 35, Kadaba teaches:

- The method of claim 34, wherein the second signal is not generated when a grant is generated.

(Note: section [0080] in Kadaba)

35. In regard to claim 36, Kadaba teaches:

36. Claim 36 is rejected for the same reasons as per claim 7.

37. In regard to claim 37, Kadaba teaches:

- The method of claim 36, further comprising transmitting the grant when a grant is issued.

(Note: section [0080] in Kadaba)

38. In regard to claim 38, Kadaba teaches:

- The method of claim 24, wherein the received packet is a subpacket.

(Note: section [0030] in Kadaba)

39. In regard to claim 39, Kadaba teaches:

- The method of claim 39, wherein the decoding is performed in response to previously received corresponding subpackets, if any.

(Note: section [0012] in Kadaba)

40. Claims 40, 57, 61 and 63 are rejected for the same reasons as per claim 24.

41. Claim 42 is rejected for the same reasons as per claim 25.

42. Claim 43 is rejected for the same reasons as per claim 26.

43. Claim 44 is rejected for the same reasons as per claim 27.

44. Claim 45 is rejected for the same reasons as per claim 28.

45. Claim 46 is rejected for the same reasons as per claim 29.

46. Claim 47 is rejected for the same reasons as per claim 30.

47. Claim 48 is rejected for the same reasons as per claim 31.

48. Claim 49 is rejected for the same reasons as per claim 32.

49. Claim 46 is rejected for the same reasons as per claim 29.

50. Claim 53 is rejected for the same reasons as per claim 38.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

51. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hakkinen as applied to claim 1 above, and further in view of Applicant Admitted Prior Art (Hereinafter AAPA).

52. In regard to claim 2, Hakkinen teaches substantially all the limitations in claim 1. However, Hakkinen does not disclose:

- The apparatus of claim 1, wherein the second message comprises a rate control command.

AAPA discloses the rate control based command structure (see page 2, section [0007].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hakkinen with AAPA teaching to include a

second message comprising rate control command.

This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized the need to for improved uplink (reverse) signal detection and channel quality indication.

53. In regard to claim 3, AAPA teaches:

The apparatus of claim 2, wherein the rate control command is one of a plurality of values, wherein one or more of the plurality of values indicates a rate increase.

(Note: page 2, section [0007] in AAPA).

54. In regard to claim 4, AAPA teaches:

The apparatus of claim 2, the apparatus of claim 2, wherein the rate control command is one of a plurality of values, wherein one or more of the plurality of values indicates a rate decrease.

(Note: page 2, section [0007] in AAPA).

55. In regard to claim 5, AAPA teaches:

The apparatus of claim 2, the apparatus of claim 2, wherein the rate control command is one of a plurality of values, wherein one or more of the plurality of values indicates a rate hold.

(Note: page 2, section [0007] in AAPA).

56. Claims 8, 9,12-15, 18 , 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hakkinen as applied to claim 6 above, and further in view of Kadaba et al. US publication no. 2002/0172217 (Hereinafter Kadaba).

57. In regard to claim 8, Hakkinen teaches substantially all the limitations in claim 6. However, Hakkinen does not teach:

- The apparatus of claim 6, wherein the receiver is further operable to receive one or more transmission requests and one or more autonomous transmissions, the apparatus further comprising a scheduler for allocating a shared resource in response to the one or more transmission requests and the one or more autonomous transmissions.

Kadaba, in an analogs art that teach multiple mode data communication system and method and forward and/or reverse link control channel structure, teaches:

- A receiver is further operable to receive one or more transmission requests and one or more autonomous transmissions, the apparatus further comprising a scheduler for allocating a shared resource in response to the one or more transmission requests and the one or more autonomous transmissions.

(Note: Abstract, lines (9-12) in Kadaba)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Hakkinen with AAPA teaching to include multiple mode system enables wireless unit transmissions to be scheduled and/or be transmit autonomously.

This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have

recognized the need to for improved uplink (reverse) signal detection and channel quality indication.

58. In regard to claim 9, Kadaba teaches:

- The apparatus of claim 8, wherein the message generator further generates a grant message in response to a transmission request in accordance with the allocation.

(Note: section [0012} in Kadabe)

59. Claim 12 is rejected for the same reasons as per claim 2.

60. Claim 13 is rejected for the same reasons as per claim 3.

61. Claim 14 is rejected for the same reasons as per claim 4.

62. Claim 15 is rejected for the same reasons as per claim 5.

63. In regard to claim 18, Kadabe teaches:

- The apparatus of claim 16, wherein the second signal comprises a rate control command, and the transmitter transmits a second packet at a rate determined in accordance with a rate control command.

(Note: section [0030] in Kadaba)

64. Claims 51 and 52 are rejected for the same reasons as per claim 18.

Conclusion

65. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Packer et al. US patent no. 6115357 teaches method for pacing flow in a packet based network.
- Hsu et al. US patent no. 7050406 teaches apparatus and associated method for generating assignment information used pursuant to channel allocation in a radio communication system..
- Wu et al. US patent no. 6680925 teaches method and system for selecting a best serving sector in a CDMA data communication system.
- Kuwahara US patent no. 6363255 teaches mobile communication system and mobile station.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Rizk whose telephone number is (571) 272-8191. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronics Business Center (EBC) at 866-217-9197 (toll-free)

Sam Rizk, MSEE, ABD

Examiner

ART UNIT 2133

7/20/06

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